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Rusi P. Taleyarkhan
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VIA FAX 517 273 8300 March 5, 2008

The Commissioner for Patents

United States Patent office

Washington DC

Dear Sir:

Application #10/692,755 – Resending for Entry of Response to (5.1.2007)Non-Compliant Amendment

On 6.1.2007 Applicant had submitted to USPTO a Response to the 5.1.2007 Non-Compliant Amendment which included revised claims. For some reason this Response has not been entered into the system and is being resent for inclusion. A separate 6.1.2007 transmittal of IDS documents by Applicant was entered into the USPTO system; however the Response was not.

On 2.20.2008 USPTO supervisor (Group 3363) J. Keith recommended to the Applicant that Applicant transmit again the original Response of 6.1.07 to USPTO along with an explanation and proof of the USPTO fax acknowledgment receipt of 6.1.07.

Accordingly, Applicant respectfully is transmitting again the following documents:

- USPTO fax acknowledgment receipt dated 6.1.2007 which acknowledges transmittal of Applicant's Response to Office Action
- The 6.1.2007 (5-page) Response to Office Action (including cover letter, summary table citing IDS documents, and revised Claims) on Application #10/692,755.

The Applicant respectfully requests that USPTO promptly rectify the above-mentioned error, and include the 6.1.07 Response into the system so Application #10/692,755 can be processed further by Group 3363 Examiner (R. Palabrica).

Very respectfully,

Rusi P. Taleyarkhan

Dr. Rusi P. Taleyarkhan

Inventor Applicant

To: auto-reply fax to 301 320 88 00 COMPANY:

Auto-Reply Facsimile Transmission

TO:	Fax Sender at 301 320 88 00
Fax Information	
Date Received:	6/1/2007 1:36:55 PM [Eastern Daylight Time]
Total Pages:	6 (including cover page)

ADVISORY: This is an automatically generated return receipt confirmation of the facsimile transmission received by the Office. Please check to make sure that the number of pages listed as received in Total Pages above matches what was intended to be sent. Applicants are advised to retain this receipt in the unlikely event that proof of this facsimile transmission is necessary. Applicants are also advised to use the certificate of facsimile transmission procedures set forth in 37 CFR 1.8(a) and (b), 37 CFR 1.6(f). Trademark Applicants, also see the Trademark Manual of Examining Procedure (TMEP) section 306 et seq.

Received Cover Page =======>

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VIA FAX 517 273 8300 June 1, 2007

The Commissioner for Patents

United States Patent office

Washington DC

Dear Sir:

Application #10/692,753 - Response to Non-Compliant Amendment and Revocation of Power of Attorney to Counsel

The Applicant respectfully requests the Office to revoke the power of attorney of counsel Neil Jetter of the law firm of Akerman Senterfitt as requested in the letter of date May 25, 2007 and confirmed herewith on the attached US PTO Form 82. The applicant will continue prosecution of the present application including this response to the non-compliant amendment.

The applicant thanks the examiner for the interview of May 24, 2007, where a new set of claims (claims 34 to 47) was presented addressing the non-compliant amendment. It is the understanding of the applicant that the new claims are acceptable to the examiner, particularly in light of the extremely high temperatures noted in the disclosure and discussed at the 5.24.07 interview (e.g., Fig. 16). Furthermore, it is the understanding of the applicant that these claims will be entered. A copy corrected for errors is attached.

As requested by the examiner, the applicant respectfully will submit an IDS under separate cover (references attached). These include three independent verifications (Xu et al., 2005; Forringer et al., 2006; LeTourneau University, Texas, *Press Release*, 2006; and the Bugg,W report to Purdue University, 2006) of the present invention. The present invention and these verifications all use radiation induced vapor bubbles in their own parent liquid when placed in transiently metastability. In addition the applicant submits , a paper published in the premier journal *Physical Review E* - Taleyarkhan et al., 2004 (see for example Fig. 7c) which demonstrates that thermonuclear fusion reactions emitting 2.5 MeV fission neutrons are time correlated with implosion-induced sonoluminescence light flashes implying hot, compressed conditions as in the experimental conditions of the present invention.

As also discussed with the examiner, a theoretical foundation has also been developed which takes into account all relevant physics of the situation. It has passed peer review and validated by worldwide experts, and published in the premier journal *Phys. of Fluids* (Nigmatulin et al., 2005). This theoretical foundation when applied specifically to the method of the present invention also confirms thermonuclear conditions (see Fig. 13 of

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VIA FAX 517 273 8300 June 1, 2007

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United States Patent office

Washington DC

Dear Sir:

Application #10/692,755 - Response to Non-Compliant Amendment and Revocation of Power of Attorney to Counsel

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Nigmatulin et al., 2005) with temperatures and pressures reaching in the range of 10^8K+ and 1,000+ Mbar, respectively. These evidence pieces were presented to and discussed with the examiner at the above interview and are included.

Very respectfully,

Rusi P. Taleyarkhan

Dr. Rusi P. Taleyarkhan

Inventor Applicant

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IDS Input:

Bugg, W. "Report on Activities on June 6-7, 2006 Visit," Report to Purdue University, June 9, 2006.

Forringer, E., D. Robbins, and J. Martin, "Confirmation of Neutron Production During Self-Nucleated Acoustic Cavitation," Archived in Transactions of the American Nuclear Society, Vol. 95, pp. 736-737, November 12-16, 2006.

LeTourneau University News Release, Nov. 17, 2006.

Nigmatulin R. I., I. Akhatov, A. Topolnikov, R. Bolotnova, N. Vakhitova, R. T. Lahey, Jr., and R. P. Taleyarkhan, "Theory of supercompression of vapor bubbles and nanoscale thermonuclear fusion," Physics of Fluids, Vol. 17, 107106, 2005.

Taleyarkhan, R. P., J. S. Cho, C. D. West, R. T. Lahey,Jr., R. I. Nigmatulin, and R. C. Block, "Additional evidence of nuclear emissions during acoustic cavitation," Physical Review E, Vol. 69, 036109-1 to 11, March, 2004.

Xu, Y., and A. Butt, "Confirmatory experiments for nuclear emissions during acoustic cavitation," Nuclear Engineering and Design, 235, pp. 1317-1324, 2005.